

REMARKS

Claims 1-42 are pending in the Application. Claims 1, 3-22, and 24-42 were rejected and claims 2 and 23 objected to in the Office action mailed September 18, 2008. The instant Office action follows a Panel Decision of June 24, 2008 to re-open prosecution, in response to Applicants' Pre-Appeal Brief Request for Review filed May 7, 2008. No claims are amended by this response. Claims 2 and 23 are cancelled and new claims 43-59 are added by this response. Claims 1, 7, 15, 22, 28, 36, 43, 48, and 53 are independent claims. Claims 2-6, 8-14, 16-21, 23-27, 29-35, 37-42, 44-47, 49-52, and 54-59 depend, respectively, from independent claims 1, 7, 15, 22, 28, 36, 43, 48, and 53. Applicants respectfully request reconsideration of claims 1, 3-22, 24-42, and consideration of new claims 43-59, in light of the remarks that follow.

Objections to Claims

Claims 2 and 23 were objected to as depending from rejected base claims 1 and 22, respectively. Applicants have cancelled claims 2 and 23, and have rewritten claims 2 and 23 as new claims 43 and 48, respectively, which incorporate all of the limitations of base claims 1 and 22, and any intervening claims (none). Applicants respectfully submit that claims 43 and 48, and claims 44-47 and 49-52 that depend therefrom, are therefore allowable. Applicants respectfully submit that new claims 43-52 do not add new matter.

Claim Rejections

Claims 1, 3, 5-7, 9-16, 18-22, 24, 26-28, 30-37, and 39-42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Huang (U.S. Patent 5,434,856) in view of O'Neill, et al. (US 5,987,099, hereinafter "O'Neill"). Claims 4, 8, 17, 25, 29, and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Huang in view of O'Neill, and further in view of Meier, et al. (US 5,394,436, hereinafter "Meier"). Applicants respectfully traverse the rejections.

Applicants respectfully note that all rejections are based upon grounds of alleged obviousness. Applicants respectfully submit that the Office has not established a *prima facie* case of obviousness, in accordance with M.P.E.P. §2142.

According to M.P.E.P. §2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." M.P.E.P. §2142 further states that "[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." As recognized in M.P.E.P. §2142, "[t]he Supreme Court in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007), 82 USPQ2d 1385, 1396 noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit." In addition, the Federal Circuit has made clear that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 127 S. Ct. 1727 (2007), 82 USPQ2d at 1396.

Applicants respectfully note that the Office has not responded to Applicants' arguments regarding the Huang reference, in spite of the fact that the Examiner's position on Huang is repeated, verbatim, in the instant Office action. Applicants respectfully request, should the Office persist in the rejection of the pending claims, that the Office provide a clear, specific, and detailed response to Applicants' arguments, as required by M.P.E.P. §2142 and 37 C.F.R. §1.104.

I. The Proposed Combination Of Huang And O'Neill Does Not Render Claims 1, 3, 5-7, 9-16, 18-22, 24, 26-28, 30-37, And 39-42 Unpatentable

Applicants first turn to the rejection of claim 1, which recites "[a] communication network operating to support voice and data communication within a premises, said communication network comprising: a plurality of mobile network devices comprising a buffer that stores incoming digital voice information for a predetermined queuing period

before beginning voice reproduction from the stored digital voice information; a stationary network device; a wireless network that is used by each of said plurality of mobile network devices to selectively exchange voice and data packets with others of the plurality of mobile network devices; a hardwired network connected to both said stationary network device and said wireless network; said hardwired network being used to route voice and data packets between said stationary network device and said plurality of mobile network devices which participate via said wireless network; a telephone, connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form; said stationary network device comprising a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information into an analog voice stream and delivering the analog voice stream to said telephone; and said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices."

The Applicants respectfully submit that the proposed combination of Huang And O'Neill does not teach Applicants' feature:

"...a plurality of mobile network devices comprising a buffer that stores incoming digital voice information for a predetermined queuing period before beginning voice reproduction from the stored digital voice information;..."

The Office asserts that Huang discloses "...a plurality of mobile network devices (**items 114-116, of Fig. 1**) comprising a buffer (**item 200 of Fig. 2**) that stores incoming digital voice information for a predetermined queuing period before beginning voice reproduction from the stored digital voice information (**col 1, lines 58-67**);...." (emphasis in original.) See Office action of September 18, 2008 at page 3. Applicants respectfully note that the Office cites only Huang as teaching this aspect of Applicants' claim 1.

Applicants have previously addressed the alleged teachings of Huang in regard to this aspect of Applicants' claim 1. See Response filed March 7, 2008 at pages 16-18 and Pre-Appeal Brief Request For Review filed May 7, 2008 at pages 2-3. Although the Office states, at page 2 of the instant Office action, that "Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and ... is withdrawn..." and that "...new ground(s) of rejection has been made in this office action in view of Huang, Meier et al and a newly found reference Oneill et al. [sic]", the text of the rejection of this aspect of Applicants' claim 1 in the instant Office action is identical to that of the prior Office action. See Office action of January 7, 2008 at page 3. Although the instant Office action now rejects claim 1 under 35 U.S.C. §103(a), the arguments presented and the portions of Huang cited as support are the same. In spite of this, the instant Office action fails to rebut or even address Applicants' prior arguments and simply repeats the rejection. Therefore, Applicants again respectfully submit that Huang fails to teach or suggest Applicants' claim 1 feature "...a plurality of mobile network devices comprising a buffer that stores incoming digital voice information for a predetermined queuing period before beginning voice reproduction from the stored digital voice information;....", for at least the following reasons.

Applicants respectfully maintain that Huang describes items 114-116 of Fig. 1 as "base stations", alleging that the "base stations 114-116" of Huang teach the "plurality of mobile network devices" of Applicants' claim 1. In the absence of any guidance or explanation from the Office, Applicants reviewed Huang and found that Huang provides a further description of a "base station" at column 2, lines 23-40, which states:

The base stations (114-116), which may be Motorola Smartrepeaters operating in conjunction with a site controller, are connected with the frame relay switch (120) via telecommunication links (126-128) such as private telephone lines utilizing T1 or "fractional T1" protocols. The frame relay switch (120), which may be a Motorola Smartzone.RTM. controller, provides relay capability of voice packets between the base stations (114-116) as well as the packet gateway (121). The voice packets are blocks of

digitally-compressed voice (coded voice information) logically arranged into groups, identified by at least a talkgroup identification (ID). The packet gateway (121) converts voice packets from the format used by the frame relay switch (120) to that used by the LAN (125). The protocol used by the LAN (125) can be any protocol able to accomodate packetized voice.

The above portion of Huang teaches that base stations are connected to a frame relay switch via links that carry voice packets to/from a packet gateway that converts the voice packets from the format used by the frame relay switch to that used by a LAN. Applicants again respectfully submit that the Office has misinterpreted the language of claim 1. Applicants' claim 1 clearly recites "a plurality of **mobile** network devices" in contrast to Applicants' recited "**stationary** network device." Those of ordinary skill in the relevant art would not consider a "base station" to be **mobile**, and the Office fails to provide any explanation or interpretation of Huang to show how and where Huang teaches that "base stations 114-116" are mobile. Although a "base station" may be considered a "network device", Huang does not teach that any of the "base stations 114-116" are a "**mobile** network device", as recited by Applicants' claim 1. Therefore, Applicants respectfully submit that the "base stations 114-116" of Huang do not teach or suggest at least a "plurality of mobile network devices" as recited by Applicants' claim 1.

In addition, Applicants respectfully maintain that neither this portion, nor any other portion or figure of Huang teaches that "base stations 114-116" comprise "...a buffer that stores incoming digital voice information for a predetermined queuing period...", or that "base stations 114-116 " perform "...voice reproduction from the stored digital voice information...", as recited by Applicants' claim 1. Therefore, Applicants again respectfully submit that Huang does not teach at least this aspect of Applicants' claim 1.

Further, Applicants respectfully submit that the "buffer" identified by the Office (item 200 of Fig. 2) as allegedly part of a "base station" is not a part of the "base stations 114-116", (which the Examiner identified as corresponding to Applicants'

feature “plurality of mobile network devices”), but is instead located in “item 200 of Fig. 2” that Huang describes as part of a “console” (items 122-124 of Fig. 1). Huang fails to teach or suggest that the “consoles 122-124” are part of the “base stations 114-116”, therefore the “buffer 200” of the “console 122-124” of Fig. 2 of Huang is not part of the “base stations 114-116”, identified by the Office as teaching Applicants’ feature “plurality of mobile network device”. Hence, Huang also fails to teach this aspect of Applicants’ claim 1.

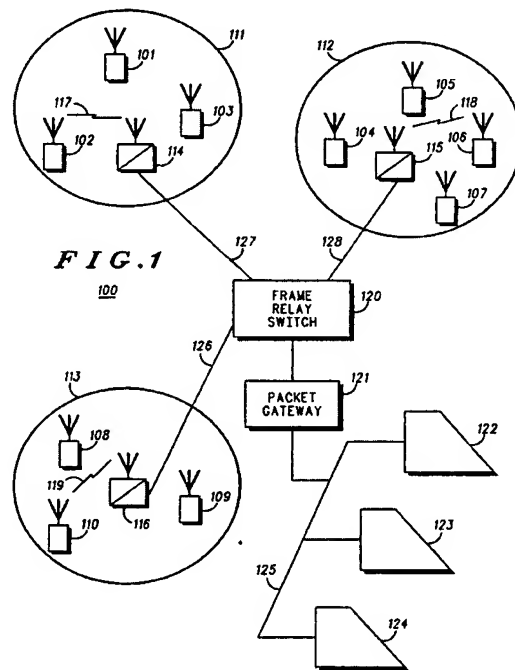
Applicants respectfully submit that the Office cited only Huang for support of the rejection of these aspects of claim 1, that Applicants have shown that Huang fails to teach at least these aspects of Applicants’ claim 1, and that the Office has failed to show where O’Neill remedies these shortcomings of Huang. Because Huang does not teach at least this aspect of Applicants’ claim 1, and the Office has failed to show where O’Neill teaches this aspect of claim 1, it necessarily follows that the proposed combination of Huang and O’Neill cannot teach or suggest at least this aspect of Applicants’ claim 1.

The Applicants also respectfully submit that the proposed combination of Huang and O’Neill does not teach Applicants’ feature:

“...a hardwired network connected to both said stationary network device and said wireless network; said hardwired network being used to route voice and data packets between said stationary network device and said plurality of mobile network devices which participate via said wireless network;...”

The Office again asserts that Huang discloses “...a hardwired network (**LAN, item 125 of Fig 1**) connected to both said stationary network device (**packet gateway**) and said wireless network (**items 111-113 of Fig 1, col 2, lines 1-23**);...” (emphasis in original.) See Office action of September 18, 2008 at page 3. Applicants respectfully note that the Office cites only Huang as teaching this aspect of Applicants’ claim 1, and that the arguments and support for the rejection of this aspect of Applicants’ claim 1 are

identical to that presented by the Office in the prior Office action. See Office actions of September 18, 2008 at page 3 and January 7, 2008 at pages 3-4. Applicants again reproduce Fig. 1 of Huang below.



As can clearly be seen above, Fig. 1 of Huang shows that "LAN 125", which was identified by the Office as teaching Applicants' feature "hardwired network", connects the "consoles 122-124" to the "packet gateway 121". The "LAN 125" does not, however, connect to both the "packet gateway 121" and the "coverage areas 111-113", which were identified by the Office as teaching Applicants' feature "wireless network", in accordance with Applicants' claim 1. Applicants respectfully maintain that the Office has failed to show how the "LAN 125" of Fig. 1 of Huang, specifically cited by the Office, teaches at least this aspect of Applicants' claim 1.

Applicants respectfully submit that the Office cited only Huang for support of the rejection of this aspect of Applicants' claim 1, that Applicants have shown that Huang fails to teach at least these aspects of Applicants' claim 1, and that the Office has failed to show where O'Neill remedies these shortcomings of Huang. Because Huang does

not teach at least this aspect of Applicants' claim 1, and the Office has failed to show where O'Neill teaches this aspect of claim 1, it necessarily follows that the proposed combination of Huang and O'Neill cannot teach or suggest at least this aspect of Applicants' claim 1.

The Applicants respectfully submit that the proposed combination of Huang and O'Neill does not teach Applicants' Feature:

“...a telephone, connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form;...”

The Office continues to assert that Huang discloses “...a telephone (**consoles, item 122 of Fig 1**), connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form (**col 2, lines 41-52**);....” (emphasis in original) See Office action of September 18, 2008 at page 3. Applicants respectfully disagree that the “consoles 122” of Fig. 1 of Huang teach “...a telephone, connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form;...”, as recited by Applicants' claim 1. Applicants respectfully note that the Office cites only Huang in regard to the rejection of this aspect of Applicants' claim 1, and that the arguments and cited support for the rejection of this aspect of Applicants' claim 1 in the instant Office action are identical to that of the prior Office action. See Office action of January 7, 2008 at page 3.

Regarding the teachings of Fig. 1 of Huang, Applicants again respectfully submit that Fig. 1 of Huang simply illustrates the interconnections of a number of entities of a communication system, and does not teach “a telephone” that “...captures, delivers, receives and reproduces voice in an analog voice stream form;...”, in accordance with the language of Applicants' claim 1. For example, nothing in Fig. 1 provides any teaching with regard to capturing, delivering, receiving or reproducing voice in an analog voice stream form. Therefore, Applicants respectfully maintain that Fig. 1 of Huang fails to teach or suggest at least this aspect of Applicants' claim 1.

Applicants now turn to the alleged teachings of Huang at column 2, lines 41-52, which states:

FIG. 2 illustrates a more detailed depiction of the consoles (122-124) comprising buffers (200-202), decoders (203-205), a data de-multiplexer (206), data routers (207-208), a summer (209), a digital-to-analog converter (D/A) (210), and a speaker (211). Received voice packets are stored in their respective buffers (200-202) by the data de-multiplexer (206) based on their talkgroup ID. Specifically, each of the buffers (200-202) is uniquely reserved for the storage of voice packets received from each of the communication talkgroups. Storage of the voice packets will be discussed later in further detail.

Applicants respectfully maintain that this portion of Huang teaches that each of the “consoles 122-124” of Huang comprise buffers that each receive voice packets according to a corresponding “talkgroup ID”. However, neither this portion of Huang, specifically cited by the Office, nor any other portion or figure of Huang, teaches that the “consoles 122-124” behave as “a telephone” that “...**captures**, delivers, receives and reproduces **voice in an analog voice stream form...**”, as recited by Applicants’ claim 1. Huang clearly explains, at column 3, lines 3-11, how voice packets are processed after being placed in one of the “buffers 200-202” of “consoles 122-124”:

In a preferred embodiment, each decoder (203-205) produces decoded voice information in PCM format. Each stream of decoded voice information is digitally summed with the other decoded voice information by the summer (209). The resulting summed PCM data is converted to analog form by the D/A (210) and rendered audible through the speaker (211). Further understanding of the operation of the consoles (122-124) may be gained from FIG. 3.

Therefore, Applicants respectfully maintain that while the “consoles 122-124” act to reproduce voice from voice packets in “buffers 200-202”, the Office has failed to show where and why Huang teaches that the “consoles 122-124” of Huang “capture and

delivery voice in an analog voice stream form", as recited by Applicants' claim 1. The cited portion of Huang provides no such teaching. Therefore, Applicants respectfully submit that the Office has failed to show how and why the "consoles 122-124" of Huang teach or suggest at least the "telephone" feature of Applicants' claim 1.

Applicants respectfully submit that the Office cited only Huang for support of the rejection of this aspect of Applicants' claim 1, that Applicants have shown that Huang fails to teach at least this aspect of Applicants' claim 1, and that the Office has failed to show where O'Neill remedies the shortcomings of Huang discussed above. Because Huang does not teach at least this aspect of Applicants' claim 1, and the Office has failed to show where O'Neill teaches this aspect of claim 1, it necessarily follows that the proposed combination of Huang and O'Neill cannot teach or suggest at least this aspect of Applicants' claim 1.

The Applicants also respectfully submit that the proposed combination of Huang and O'Neill does not teach Applicants' features:

"...said stationary network device comprising a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information into an analog voice stream and delivering the analog voice stream to said telephone;..."

and

"...said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices."

The Office asserts that Huang discloses "...said stationary network device comprising a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information (**voice packets**) into an analog voice stream (**D/A, item 210 of Fig 2, col 3, lines 1-42**) and delivering the analog voice stream to said telephone (**col 2, lines 53-**

67)....” Applicants respectfully note that the argument and cited support for the rejection of this aspect of Applicants’ claim 1 is identical to that set forth in the prior Office action. See Office action of January 7, 2008 at page 4.

As an initial matter, Applicants respectfully submit that the Office is inconsistent in its interpretations of the teachings of Huang, for at least the reasons discussed below.

Applicants respectfully maintain that the Office identifies the “stationary network device” element of Applicants’ claim 1 as being taught by the “packet gateway 121” of Fig. 1 of Huang. See page 3 of the Office action of September 18, 2008. With regard to Applicants’ features now discussed, the Office suggests that the “packet gateway 121” of Huang teaches a “...stationary network device comprising a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information into an analog voice stream and delivering the analog voice stream to said telephone....” Applicants respectfully disagree with this assertion.

Applicants respectfully submit that the Office has failed to show where Huang teaches that the “packet gateway 121” comprises such a buffer, or that the “packet gateway 121” contains a “D/A” or performs such a digital-to-analog conversion function. The “D/A 210” identified by the Office as teaching digital-to-analog (D/A) conversion in the “packet gateway 121” is, in fact, an element within the “consoles 122-124” of Huang, and is not part of the “packet gateway 121”. Applicants respectfully note that the Office previously identified the “consoles 122-124” as teaching Applicants’ feature of a “telephone”. Therefore, the Office is now asserting that elements of Huang, clearly identified as being in the “consoles 122-124” of Fig. 1 of Huang, which the Office previously identified as teachings Applicants’ “telephone” feature, are now in the “packet gateway 121” of Huang., which the Office identifies as teaching Applicants’ “stationary network device”. The Office has failed to set forth any explanation of where and why the teachings of Huang support such an interpretation. Therefore, Applicants respectfully submit that the “packet gateway 121”, which the Office suggests teaches

Applicants' "stationary network device", does not teach or suggest at least this aspect of Applicants' claim 1.

Applicants appreciate recognition by the Office that Huang "...fails to disclose said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices." See page 4 of September 18, 2008 Office action. However, the Office then turns to O'Neill stating, in part, that O'Neill discloses "...a method for said stationary network device (**base station controller, item 618 of Fig 5**) that converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices (**col 5, lines 56-65, Fig 5**)." (emphasis in original) See Office action of September 18, 2008 at page 4. Applicants respectfully disagree, and begin by addressing "item 618" of Fig. 5 of O'Neill, which O'Neill describes as "station controller 618". Applicants have reproduced Fig. 5 of O'Neill, below.

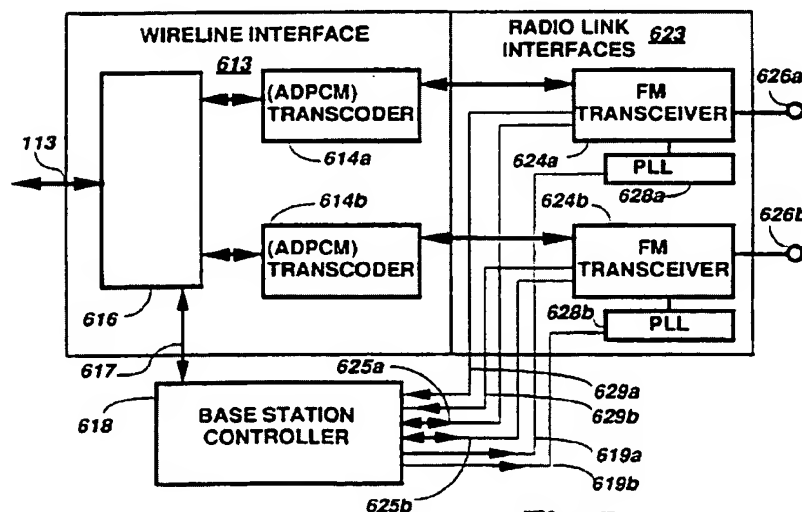


Fig 5

Applicants respectfully submit that there is nothing in Fig. 5 of O'Neill that teaches or suggests a "... stationary network device that converts analog voice streams

received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices...", as asserted by the Office action. Instead, Fig. 5 of O'Neill shows a number of elements of what O'Neill describes, at column 4, lines 33-35, as a "...block schematic diagram of an example of a base station radio which can be used in the small digital telephone system in FIG. 3." There is no mention or suggestion of the "station controller 618" of O'Neill converting "analog voice streams" received from a "telephone" into voice packets for delivery via "hardwired and wireless networks" to one of a plurality of "mobile network devices". Therefore, Applicants respectfully submit that "station controller 618" of Fig. 5 of O'Neill does not teach or suggest at least this aspect of Applicants' claims 1. Applicants now turn O'Neill at column 5, lines 56-65, which is shown below, in context:

As shown in FIG. 2, the current UK CT2 standard calls for an operating spectrum of 864-868 MHz, i.e. a 4 MHz bandwidth indicated at reference numeral 20. Within this bandwidth is provided 40 RF carriers. Each carrier 21 is used as one full-duplex channel or radio link with a bandwidth of 100 kHz per channel, i.e. in a Frequency Division Multiple Access (FDMA) mode, with time-division duplex (TDD) operation. That is, one half-duplex time slot or burst of each frequency may be used for communication from the base station to a portable handset and the adjacent half-duplex time slot or burst of the same frequency is used for communication between the portable handset and the base station. This technique is similar in principle to time compression multiplex (TCM) operation of wirelines, and is commonly referred to as "ping-pong". The bits sent in each burst are partitioned into 13-channel bits, which convey user voice or data information, and D-channel bits which convey signalling information.

System Overview

The present invention is exemplified within a small digital telephone system as illustrated in FIG. 3, which itself may be supported by either a central or branch exchange (not shown) via either analog or digital lines or trunks 35 connected therebetween. Telecommunication services are provided between a plurality of station sets at 34 via a port

group 32a connected to a service controller 110 by a transmit (Tx) line 33a and a receive (Rx) lines 33a coupled via a time switch module 37. The trunks 35 are similarly coupled as shown via a port group 32b and Tx and Rx lines 33b, and a time switch module 137. Base station radios 111a-111n are connected similarly via a port group 112 and Tx and Rx lines 113, and a time switch module 137, to the service controller 110. The base station radios are arranged into several groups, spaced apart one group from the other, each group being assigned to one of a plurality of geographic cells.

(emphasis added)

Applicants respectfully submit that neither the cited portion of O'Neill, shown underlined, nor the surrounding text make any mention regarding the "station controller 618" converting analog voice streams received from a telephone into voice packets for delivery via a hardwired and/or wireless network to a selected one of a plurality of mobile network devices, in accordance with Applicants' claim 1. The cited portion of O'Neill fails to make any mention of performing analog to digital conversion of a voice stream. Applicants have reviewed O'Neill, and have been unable to identify anywhere in O'Neill that teaches or suggests a "... stationary network device that converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices...", as asserted by the Office action. If Applicants have inadvertently overlooked such teaching(s), Applicants respectfully request that the Office specifically identify the portion(s) or figure(s) from O'Neill, and include a detailed explanation of how and why the identified portion(s) and/or figure(s) are interpreted by the Office to teach this aspect of Applicants' claim 1, in accordance with M.P.E.P. §2142. In the absence of identified support, Applicants respectfully submit that O'Neill fails to overcome the admitted shortcoming of Huang, and that the proposed combination of Haugn and O'Neill does not teach or suggest at least this aspect of Applicants' claim 1.

Based at least upon the above, Applicants respectfully submit that the Office has failed to establish a *prima facie* case of obviousness, in accordance with M.P.E.P. §2142, that the proposed combination of Huang and O'Neill do not render Applicants' claim 1, or any claims that depend therefrom, unpatentable. Therefore, it is respectfully submitted that claims 1, 3, and 5-7 are allowable over Huang and O'Neill, and Applicants respectfully request that the rejection of claims 1, 3, and 5-7 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

With regard to independent claim 22, Applicants respectfully submit that the Office action rejects independent claim 22 for the same reasons citing the same references as set forth for the rejection of independent claim 1. Therefore, Applicants respectfully submit that the Office has also failed to establish a *prima facie* case of obviousness with respect to claim 22, that the proposed combination of Huang and O'Neill fails to render claim 22 and any claims that depend therefrom, unpatentable, and respectfully request that the rejection of claims 22, 24, 26, and 27 under 35 U.S.C. §103(a) be reconsidered and withdrawn, for at least the reasons set forth above.

With regard to independent claim 7, Applicants respectfully submit that claim 7 recites, "...[a] communication network located within a premises for supporting voice and data exchanges, said communication network comprising: a plurality of portable terminals, each comprising a wireless transceiver; each of said plurality of portable terminals capture voice in an analog voice stream form and generate therefrom digital voice packets; and each of said plurality of portable terminals receive digital voice packets, generate therefrom analog voice streams, and reproduce voice from the analog voice streams; each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received; a plurality of access devices, each comprising a wireless transceiver; and said plurality of access devices

using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals.”

The Office states, at page 5, that Huang discloses “...each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received (**col 3, lines 3-10**);...” (emphasis in original) See Office action of September 18, 2008 at page 5. Applicants respectfully submit that the Office cites only Huang in the rejection of this aspect of Applicants’ claim 7, and respectfully disagree with what the cited portion of Huang is alleged to teach. Applicants now address Huang at column 3, lines 3-10, which is shown below:

In a preferred embodiment, each decoder (203-205) produces decoded voice information in PCM format. Each stream of decoded voice information is digitally summed with the other decoded voice information by the summer (209). The resulting summed PCM data is converted to analog form by the D/A (210) and rendered audible through the speaker (211). Further understanding of the operation of the consoles (122-124) may be gained from FIG. 3.

The cited portion of Huang shown above simply teaches that “decoders 203-205” produce “decoded **voice** information” in PCM format, which is digitally summed and converted to analog form which is made audible. Initially, Applicants respectfully submit that the portion from Huang shown above, which was specifically cited by the Office, does not describe “items 101-103” of Fig. 1 of Huang, which the Office identified as teaching the “plurality of portable terminals” of Applicants’ claim 7, but instead, the cited portion describes the behavior of the “consoles 122-124” of Fig. 2, which are not “portable terminals” in accordance with Applicants’ claim 7.

In addition, Applicants’ claim 7 clearly and distinctly recites both “voice packets” and “data packets”, and that “...each of said plurality of portable terminals capture voice in an analog voice stream form and generate therefrom digital voice packets, and each of said plurality of portable terminals receive digital voice packets, generate therefrom

analog voice streams, and reproduce voice from the analog voice streams;...” and “...each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received.” Therefore, Applicants’ claim 7 is clear that “digital voice packets” are different from “data packets”. The portion of Huang cited by the Office, however, discloses the actions of “consoles 122-124” in producing a digital sum of multiple streams of decoded “voice information”. The cited portion of Huang fails to make any mention of a “portable terminal” that “capture[s] data” and “generates therefrom data packets”, and that “receive[s] data packets” and “reproduces data” from the data packets received, as recited by claim 7 separately and distinctly from the handling of “digital voice packets”. Applicants respectfully submit that the Office cites only Huang in the rejection of this aspect of Applicants’ claim 7, fails to show where O’Neill remedies this shortcoming of Huang, and that the proposed combination of Huang and O’Neill, therefore, necessarily fails to teach or suggest at least this aspect of Applicants’ claim 7.

The Office also asserts that Huang discloses “...routing data/voice packets to portable terminals (col 2, lines 23-40).” (emphasis in original) See Office action of September 18, 2008 at page 6. Applicants respectfully disagree, and address Huang at column 2, lines 23-40, which recite:

The base stations (114-116), which may be Motorola Smartrepeaters operating in conjunction with a site controller, are connected with the frame relay switch (120) via telecommunication links (126-128) such as private telephone lines utilizing TI or “fractional TI” protocols. The frame relay switch (120), which may be a Motorola Smartzone ® controller, provides relay capability of voice packets between the base stations (114-116) as well as the packet gateway (121). The voice packets are blocks of digitally-compressed voice (coded voice information) logically arranged into groups, identified by at least a talkgroup identification (ID). The packet gateway (121) converts voice packets from the format used by the frame relay switch (120) to that used by the LAN (125). The

protocol used by the LAN (125) can be any protocol able to accommodate packetized voice.

The cited portion of Huang shown above teaches that "base stations 114-116" are connected with a "frame relay switch 120" via "telecommunication links 126-128". The "frame relay switch 120" provides relay capability of voice packets between "base stations 114-116" and a "packet gateway 121". There is nothing in this portion of Huang, however, that teaches routing of "data packets [captured by the plurality of portable terminals]" as distinctly and separately recited by Applicants' claim 7, as alleged by the Office, without support. Further, the Office has not shown where O'Neill overcomes this deficiency of Huang. Therefore, the Office has failed to show that the Huang and O'Neill references, taken alone or in combination, teach or suggest at least this aspect of Applicants' claim 7.

Applicants appreciate recognition by the Office that Huang fails to disclose "...said plurality of access devices using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals." See Office action of September 18, 2008 at page 6. The Office then relies on O'Neill, however, and asserts that O'Neill discloses "...a method for plurality of access devices (**base stations**) using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals (**col 6, lines 48-62, col 12, lines 45-51, Figs 3,10**)." (emphasis in original) See page 6 of Office action of September 18, 2008. Applicants now address O'Neill at column 6, lines 48-62, which recites:

As illustrated in FIG. 3 the radio base stations 111a-111n as well as telephone sets 34 are each wireline connected with port groups 32a and 112 respectively. The operating wireline signal format of the system is illustrated in FIG. 4. The wireline signal format provides transmit and receive bursts for first and second voice/data channels at 64-kb/s. These are usually referred to as 13-channels. The wireline signal format also provides first and second message channels of which only the first message channel

is utilized at 8-kb/s, in this example. Each of the transmit and receive bursts includes a balance bit and begins and ends with start and stop bits, not shown. Each wireline signal stream is interfaced with a predetermined pair of time slots in receive and transmit serial bit streams in the operating signal format of the service controller 110. Only the receive serial bit stream is shown in FIG. 4.

The cited portion of O'Neill shown above discloses the wireline, not wireless, interconnection of "radio base stations" and "telephone sets 34" with "port groups 32a and 112", along with the format of a wireline signal format. There is nothing in the cited portion of O'Neill, however, that makes any mention of a "polling protocol", or of "routing of data and voice packets", let alone "...a plurality of access devices using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals...", in accordance with Applicants' claim 7. Therefore, Applicants respectfully submit that the cited portion of O'Neill at column 6, lines 48-62 does not remedy the admitted shortcomings of Huang. Applicants now address the cited portion of O'Neill at column 12, lines 45-51, which is shown below, underlined and in context:

The functional elements of the locator 220 are shown in FIG. 10. The portable sets positional information is stored in a locator database 1100. It includes a locator search cell list 1101 and locator parameters 1102. This information is kept in a non-volatile memory and updated from time to time. A call logger 1110 is responsible for collecting positional data from the cell managers upon a normal call termination. This is used to supplement a background poll which is carried out at a random intervals. An optimizer poller 1120 polls for each registered portable set in the background at random. Polling for the portable sets is done by the locator searcher 1130 and is optimized using the previously collected portable sets most likely position. The locator 220 interfaces with a community data manager 225 during the locator's initialization to extract information about cells.

(emphasis added)

This cited portion of O'Neill simply describes functional element of a "locator 220" of Fig. 10 comprising a "locator database 1101", an "optimizer poller 1120" that polls for each registered mobile, and a "community data manager 225" interfaced to the "locator 220". O'Neill also teaches that polling is optimized using the previously collected portable set's most likely position. However, there is nothing in this portion of O'Neill that makes any mention of "data and voice packets", of the routing of "data and voice packets", or of the "management" of such routing. Further, there is no mention of "base stations", which the Office has identified as teaching Applicants element "access devices", nor is there any teaching or suggestion of base stations using a polling protocol to manage wireless routing of data and voice packets within the premises among a plurality of portable terminals, in accordance with Applicants' claim 7.

Further, Applicants respectfully submit that cited Figs. 3 and 10 do not offer any support beyond that of the cited portions of text of O'Neill.

Applicants respectfully submit that the Office has admitted that Huang does not disclose "...said plurality of access devices using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals." As shown above, the portions of O'Neill cited by the Office also do not teach or suggest at least this aspect of Applicants' claim 7. Accordingly, Applicants respectfully submit that the Huang and O'Neill references, taken alone or in combination cannot, by definition, teach or suggest "...said plurality of access devices using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals...", as recited by Applicants' claim 7. Therefore, Applicants respectfully submit that a *prima facie* case of obviousness, as required by M.P.E.P. §2142 has not been established, and that claim 7 is allowable over Huang and O'Neill.

With regard to independent claim 28, Applicants respectfully submit that the Office action rejects independent claim 28 for the same reasons citing the same

references as set forth for the rejection of independent claim 7. Therefore, Applicants respectfully submit that the Office has failed to establish a *prima facie* case of obviousness with respect to claim 28, that the proposed combination of Huang and O'Neill fails to render claim 28 and any claims that depend therefrom, unpatentable, and respectfully request the rejection of claims 28, and 30-35 under 35 U.S.C. §103(a) be reconsidered and withdrawn, for at least the reasons set forth above.

With regard to independent claim 15, Applicants respectfully submit that claim 15 recites "... [a] communication network for supporting voice exchanges, said communication network comprising: a voice stream network that selectively routes voice signals captured in an analog voice stream form; a voice packet network, independent of said voice stream network, that selectively routes voice in a digital voice packet form; a first network device that captures and delivers voice in the analog voice stream form, and said first network device receives and reproduces voice from the analog voice stream form; a second network device, independent of said first network device, that communicatively couples with said first network device to receive and deliver voice in the analog voice stream form; said second network device selectively interfaces with said voice stream network to receive and route voice for said first network device in the analog voice stream form; said second network device selectively interfaces with said voice packet network to receive and route voice for said first network device in the digital voice packet form; and said second network device converts voice between the analog voice stream form and the digital voice packet form when needed for routing voice between said first network device and said voice packet network."

Applicants respectfully submit that the Office has misinterpreted the teachings of Huang in regard to the capturing, routing, delivery, and reproduction of voice signals in analog voice stream form, and of the routing of digital voice packets, as demonstrated below.

The Office asserts that Huang discloses "...a voice stream network (**voice packet pertaining to particular communication talk group**) that selectively routes voice signals captured in an analog voice stream form (**voice packets decoded and transmitted, Fig 1, col 1, lines 55-67, col 2, lines 4-13**); a voice packet network, independent of said voice stream network, that selectively routes voice in a digital voice packet form (**col 2, lines 14 -22**);...." (emphasis in original) See Office action of September 18, 2009 at pages 7-8. Applicants respectfully disagree.

Initially, Applicants respectfully note that claim 15 clearly recites "a voice stream network" that "selectively routes voice signals captured in analog voice stream form", and a separate "voice packet network" that is independent of the "voice stream network" and that "selectively routes voice in a digital voice packet form". The Office, however, offers the puzzling suggestion that a "voice packet pertaining to particular communication talk group" teaches or suggests the "voice stream network" of Applicants claim 15, that "selectively routes voice signals". The Applicants respectfully submit that a "voice stream network" and a "voice packet" are very different things, and that a "voice packet pertaining to particular communication talk group" does not teach or suggest a "voice stream network", as recited by Applicants' claim 15. Further, the Office suggests that "voice packets decoded and transmitted" somehow teach the selective routing of "voice signals captured in an analog voice stream form". The Office supports this assertion, citing Huang at column 1, lines 55-67, which is reproduced below:

DESCRIPTION OF A PREFERRED EMBODIMENT

Generally, the present invention provides a method for monitoring a plurality of communication talkgroups. This is accomplished by de-multiplexing, queuing and summing many compressed voice sessions in an efficient manner. A voice packet, pertaining to a particular communication talkgroup, is received and stored in a dedicated buffer corresponding to the talkgroup. When a decoder becomes available, the voice packet is decoded and the resulting decoded voice information is combined (summed) with other

decoded voice information. The combined voice information is then rendered ...

Applicants respectfully submit that the cited portion of Huang teaches the combining of digital voice information decoded from voice packets of multiple "communication talkgroups", which is then rendered audible. There is no mention or suggestion, however, of "a voice stream network" that "selectively routes voice signals captured in analog voice stream form", as recited by Applicants' claim 15. The Office also cites Huang at column 2, lines 4-13, shown below:

The present invention can be more fully described with reference to FIGS. 1-3. FIG. 1 illustrates a communication system (100) that includes communication units (101-110), base stations (114-116), a frame relay switch (120), a packet gateway (121), and consoles (122-124). The base stations (114-116), within their respective coverage areas (111-113), utilize communication resources (117-119) to communicate with the communication units (101-110). The consoles (122-124) communicate with the packet gateway (121) via a local-area network (LAN) (125).

The cited portion of Huang shown above simply describes the elements of Fig. 1 of Huang, which includes "base stations 114-116", a "frame relay switch 120", a "packet gateway 121", and "consoles 122-124", which communicate with the "packet gateway 121" via a "local area network 125". This portion, specifically cited by the Office, notably fails to teach or suggest anything about "voice signals", or an "analog voice stream", or a network that selectively routes "voice signals" captured in "analog voice stream" form, as recited by Applicants claim 15. Applicants respectfully submit that Fig. 1 of Huang does not provide support beyond the cited portions of Huang shown above. Further, the Office does not provide any explanation of how and why Huang teaches Applicants claim features. Because the Office cites only Huang in regard to this aspect of claim 15, Applicants respectfully submit that the Office has not shown where O'Neill teaches or suggests the shortcomings of Huang. Therefore, Applicants respectfully submit that Huang and O'Neill, taken alone or in combination, do not teach or suggest, at least, "...a

voice stream network that selectively routes voice signals captured in an analog voice stream form;...” and “... a voice packet network, independent of said voice stream network, that selectively routes voice in a digital voice packet form;....”

The Office also cites only Huang as disclosing Applicants' claim 15 feature, stating that Huang discloses “...a first network device (**base station, item 114 of Fig 1**) that captures and delivers voice in the analog voice stream form, and said first network device receives and reproduces voice from the analog voice stream form (**col 3, lines 3-11**);....” (emphasis in original) See Office action of September 18, 2009 at page 8. Applicants again respectfully disagree. Applicants respectfully submit that there is nothing in Fig. 1 of Huang that teaches or suggests that the “base station 114” of Fig. 1 “...captures and delivers voice in the analog voice stream form...” and “...receives and reproduces voice from the analog voice stream form...”, as recited by claim 15.

The Office also asserts that this aspect of Applicants' claim 15 is disclosed by Huang column 3, lines 3-11. Applicants respectfully submit that the cited portion of Huang column 3, lines 3-11 does not describe the “base station 114” of Huang, which the Office has identified as teaching Applicants' “first network device”, but instead describes the operation of the “consoles 122-124” that the Office has previously identified as teaching a “telephone”. Further, the cited portion teaches the combination of digital voice information decoded from voice packets, to form a (digital) sum that is then converted to analog form for audible reproduction. Applicants respectfully submit that Applicants' recited feature “...a first network device that captures and delivers voice in the analog voice stream form, and said first network device receives and reproduces voice from the analog voice stream form;...” is patentably distinct from the teachings of column 3, lines 3-11 of Huang. Applicants respectfully submit that the Office cited only Huang, and only at Fig. 1 and column 3, lines 3-11 as teaching these aspects of Applicants' claim 15. Applicants have shown that Huang does not teach “a first network device that captures and delivers voice in analog voice stream form, and said first network device receives and reproduces voice from the analog voice stream form;...”, as asserted by the Office, and that the Office has not shown where O'Neill teaches or

suggests this feature of Applicants' claim 15. Therefore, Applicants respectfully submit that the Huang and O'Neill references, taken alone or in combination, necessarily do not teach or suggest at least this aspect of Applicants' claim 15.

The Applicants also respectfully disagree with the assertion by the Office that Huang discloses "...a second network device (**frame relay, item 120 of Fig 1**) independent of said first network device, that communicatively couples with said first network device to receive and deliver voice in the analog voice stream form (**base station and frame relay connected via communication links**);...." (emphasis in original) See Office action of September 18, 2009 at page 8. The Office identifies Applicants' claim element "second network device" that communicatively couples with a "first network device" to "receive and deliver voice in analog voice stream form." Applicants respectfully submit that a "frame relay, item 120" as identified by the Office is a "frame relay switch 120". Huang describes "frame relay switch 120" at column 2, lines 23-40 as follows: "The frame relay switch (120), which may be a Motorola Smartzone.RTM. controller, provides relay capability of voice packets between the base stations (114-116) as well as the packet gateway (121)." (emphasis added) Thus, Applicants respectfully submit that a "frame relay switch 120" is not used for the communication of analog information such as Applicants' claimed "analog voice stream form", but instead handles digital voice information in the form of voice packets. The Office fails to provide any explanation of how the cited portions of Huang teach what is alleged. Because only Huang is cited as teaching this aspect of Applicants' claim 15, and the Office has not shown how and why O'Neill remedies this deficiency, Applicants respectfully submit that the proposed combination of Huang and O'Neill does not teach or suggest at least this aspect of Applicants' claim 15.

Applicants appreciate recognition by the Office that Huang does not disclose "...said second network device converts voice between the analog voice stream form and the digital voice packet form when needed for routing voice between said first network device and said voice packet network." See Office action of September 18, 2009 at page 8. The Office then asserts, however, that O'Neill discloses "...converting

voice forms from analog to digital and digital to analog forms in a network device (**item 618 of Fig 5, col 7, lines 42-65, Fig 5**).” Applicants respectfully submit that Applicants’ have shown that the “frame relay switch 120”, which the Office identified as teaching Applicants’ “second network device”, communicates digital voice packets, not “analog voice stream form” as recited by Applicants’ claim 15. (“The frame relay switch (120), which may be a Motorola Smartzone.RTM. controller, provides relay capability of voice packets between the base stations (114-116) as well as the packet gateway (121).”, *Id* at column 2, lines 23-40) Therefore, voice information routed through “frame relay switch 120” would be in “digital voice packet form”, not “analog voice stream form”, as recited by Applicants’ claim 15. Applicants respectfully submit, therefore, that the combination of the Huang and O’Neill references does not teach or suggest at least this aspect of Applicants’ claim 15.

Based at least upon the above, Applicants respectfully submit that the Office has not established a *prima facie* case of obviousness, as required by M.P.E.P. §2142, that claim 15 is not rendered unpatentable by the proposed combination of Huang and O’Neill, and that claim 15, and any claims that depend therefrom, are allowable over Huang and O’Neill. Accordingly, Applicants respectfully request that the rejection of claims 15, 16, and 18-21 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

With regard to independent claim 36, Applicants respectfully submit that the Office action rejects independent claim 36 for the same reasons citing the same references as set forth for the rejection of independent claim 15. Therefore, Applicants respectfully submit that the Office has failed to establish a *prima facie* case of obviousness with respect to claim 36, that the proposed combination of Huang and O’Neill fails to render claim 36 and any claims that depend therefrom, unpatentable, and respectfully request that the rejection of claims 36, 37, and 39-42 under 35 U.S.C. §103(a) be reconsidered and withdrawn, for at least the reasons set forth above.

II. The Proposed Combination Of Huang, O'Neill, And Meier Does Not Render Claims 4, 8, 17, 25, 29, And 38 Unpatentable

Claims 4, 8, 17, 25, 29, and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Huang in view of O'Neill, in further view of Meier. Applicants respectfully submit that claims 4, 8, 17, 25, 29, and 38 are dependent claims depending, respectively, from independent claims 1, 7, 15, 22, 28, and 36. Applicants respectfully submit that claims 1, 7, 15, 22, 28, and 36 are allowable over the proposed combination of references, in that Meier fails to overcome the shortcomings of Huang and O'Neill, as set forth above. Because claims 1, 7, 15, 22, 28, and 36 are allowable over the proposed combination of Huang, O'Neill, and Meier, Applicants respectfully submit that dependent claims 4, 8, 17, 25, 29, and 38 are also allowable, for at least the same reasons. Therefore, Applicants respectfully request that the rejection of claims 4, 8, 17, 25, 29, and 38 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

Newly Added Claims

Applicants have added new claims 43-59. Claims 43 and 48 correspond to dependent claims 2 and 23 re-written in independent form, including all of the limitations of base claims 1 and 22, and any intervening claims (none). Applicants respectfully submit that independent claims 43 and 48, and claims 44-47 and 49-52 that depend therefrom, are therefore allowable. New claims 53-59 include independent claim 53 and claims 54-59 that depend therefrom. Claims 53-59 are similar in many ways to claims 1, 3-22, and 24-42, and are allowable for at least the same reasons. Applicants respectfully submit that new claims 43-59 do not add new matter.

Conclusion

In general, the Office action makes various statements regarding the claims and the cited references that are now moot in light of the above. Thus, Applicants will not address such statements at the present time. However, Applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such

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statements should become relevant by appearing in a rejection of any current or future claim).

Applicants believe that claims 1, 3-22, and 24-59 define allowable subject matter, for at least the reasons set forth above, and those presented during prior prosecution.

The Applicants believe that all of pending claims 1, 3-22, and 24-59 are in condition for allowance. The Examiner is encouraged to contact the undersigned at 312-775-8000, should the Examiner disagree or have any questions regarding this submission.

The Commissioner is hereby authorized to charge additional fee(s) or credit overpayment(s) to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

Dated: February 2, 2009
McAndrews, Held & Malloy, Ltd.
500 West Madison Street, 34th Floor
Chicago, Illinois 60661
(312) 775-8000

By /Kevin E. Borg/
Kevin E. Borg
Reg. No. 51,486